

AMENDMENTS

IN THE CLAIMS:

Please add new claims 46-50, cancel claims 4-6, 8, 10, and 31-40, and amend claims 1, 7, 9, 11-13, 17, 18, and 21 as provided below:

1. (Currently Amended) An electronic transmitter device ~~comprising~~
comprising:
a puncturing device, wherein the puncturing device comprises:
a first and a second data output,
~~and wherein the puncturing device is configured in such a way that it distributes~~
to distribute an output data stream substantially uniformly in parallel between the first
and second data outputs,
~~and wherein the puncturing device is further configured to provide empty~~
locations in the output data stream so that a number of bits of an input data stream
corresponds, including with the empty locations, to a number of bits of the output data
stream, ~~and~~
wherein the puncturing device is ~~still further~~ configured to output, in addition to
the output data stream, a signal which indicates a position of an empty location in the
output data stream; and
an interleaver arranged downstream of the puncturing device in a direction of the data
stream, and comprising:
a first data input which is directly or indirectly electrically connected to the first
data output of the puncturing device;
a second data input which is directly or indirectly electrically connected to the
second data output of the puncturing device;
an n x m interleaver, n and m being natural numbers;
a first shift register which is directly or indirectly electrically connected to its first
data input;

a second shift register which is directly or indirectly electrically connected to its second data input; and

a matrix register;

wherein in each case two bits are written in parallel into the matrix register from the two shift registers.

2-6. (Canceled).

7. (Currently Amended) The electronic transmitter device as claimed in ~~claim 6~~ claim 1, wherein both shift registers are 8-bit shift registers.

8. (Canceled).

9. (Currently Amended) The electronic transmitter device as claimed in ~~claim 8~~ claim 1, wherein the matrix register comprises a 16 x 18 matrix register.

10. (Canceled).

11. (Currently Amended) ~~The electronic transmitter device as claimed in claim 8,~~ An electronic transmitter device comprising:

a puncturing device, wherein the puncturing device comprises:

a first and a second data output,

wherein the puncturing device is configured to distribute an output data stream substantially uniformly in parallel between the first and second data outputs;

wherein the puncturing device is configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, with the empty locations, to a number of bits of the output data stream;

wherein the puncturing device is still further configured to output, in addition to the output data stream, a signal which indicates a position of an empty location in the output data stream; and

an interleaver arranged downstream of the puncturing device in a direction of the data stream, and comprising:

a first data input which is directly or indirectly electrically connected to the first data output of the puncturing device;

a second data input which is directly or indirectly electrically connected to the second data output of the puncturing device;

an $n \times m$ interleaver, n and m being natural numbers;

a first shift register which is directly or indirectly electrically connected to its first data input;

a second shift register which is directly or indirectly electrically connected to its second data input; and

a matrix register;

wherein in each case two bits are written in parallel into the matrix register from the two shift registers;

wherein after the two shift registers have been completely filled by inputs via the corresponding data inputs of the interleaver, their bits are input together as a bit column into the matrix register, interleaved in the manner of a comb, and in this way the bits gradually fill up a plurality of, or all of, the columns of the matrix register.

12. (Currently Amended) The electronic transmitter device as claimed in ~~claim~~ claim 1, wherein the interleaver comprises an RAM and is designed in such a way that the bit pairs which pass into the interleaver are written directly to predetermined RAM addresses.

13. (Currently Amended) ~~The electronic transmitter device as claimed in claim 4,~~ An electronic transmitter device comprising:
a puncturing device, wherein the puncturing device comprises:
a first and a second data output,
wherein the puncturing device is configured to distribute an output data stream
substantially uniformly in parallel between the first and second data outputs;
wherein the puncturing device is configured to provide empty locations in the
output data stream so that a number of bits of an input data stream corresponds, with
the empty locations, to a number of bits of the output data stream;
wherein the puncturing device is configured to output, in addition to the output
data stream, an indication signal which indicates a position of an empty location in the
output data stream;
an interleaver arranged downstream of the puncturing device in a direction of the data
stream, and comprising:
a first data input which is directly or indirectly electrically connected to the first
data output of the puncturing device, and
a second data input which is directly or indirectly electrically connected to the
second data output of the puncturing device;
wherein the interleaver is configured in such a way that, using the indication
signal which is additionally transmitted by the puncturing device, the interleaver detects
the empty locations in the parallel input data stream coming from the puncturing device,
and does not include them in the further data processing.

14. (Previously Presented) The electronic transmitter device as claimed in
claim 1, wherein the puncturing device comprises one puncturing element.

15. (Previously Presented) The electronic transmitter device as claimed in
claim 1, wherein the puncturing device comprises a first puncturing element and a

second puncturing element which is arranged downstream of the first puncturing element in the direction of the data stream.

16. (Previously Presented) The electronic transmitter device as claimed in claim 15, wherein:

the first puncturing element comprises a first and a second data output and is configured in such a way that it distributes its output data stream substantially uniformly between its two data outputs, and

the second puncturing element comprises a first and a second data input, the first data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element, and the second data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element.

17. (Currently Amended) ~~The electronic transmitter device as claimed in claim 16,~~ An electronic transmitter device comprising:

a puncturing device, wherein the puncturing device comprises:

a first and a second data output,

wherein the puncturing device is configured to distribute an output data stream substantially uniformly in parallel between the first and second data outputs;

wherein the puncturing device is configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, with the empty locations, to a number of bits of the output data stream;

wherein the puncturing device is configured to output, in addition to the output data stream, an indication signal which indicates a position of an empty location in the output data stream;

wherein the puncturing device comprises a first puncturing element and a second puncturing element which is arranged downstream of the first puncturing element in the direction of the data stream;

wherein the first puncturing element comprises a first and a second data output and is configured in such a way that it distributes its output data stream substantially uniformly between its two data outputs;

wherein the second puncturing element comprises a first and a second data input, the first data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element, and the second data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element;

wherein:

the first puncturing element is configured in such a way that, in addition to its parallel output data stream, the first puncturing element transmits to the second puncturing element the indication signal which informs the second puncturing element about empty locations in the parallel output data stream of the first puncturing element, and

the second puncturing element is configured in such a way that, using the indication signal which is additionally transmitted by the first puncturing element, the second puncturing element detects the empty locations in the parallel input data stream coming from the first puncturing element, and does not include them in the further data processing.

18. ~~(Currently Amended) The electronic transmitter device as claimed in claim 16,~~ An electronic transmitter device comprising:
a first puncturing element comprising:

a first and a second data output,

wherein the puncturing device is configured in such a way that it distributes an output data stream substantially uniformly between the first and second data outputs and is further configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, with the empty locations, to a number of bits of the output data stream;

wherein the first puncturing element comprises a first data input and a second data input, and is configured in such a way that

a 1-step delay register is connected between the first data input and the first data output,

the second data input is electrically connected to a first input of a multiplexer via a 1-step delay register, and in parallel with this the second data input is directly electrically connected to a second input of a multiplexer, and

the multiplexer has an output which is electrically connected to the second data output of the first puncturing element via a further 1-step delay register.

19. (Previously Presented) The electronic transmitter device as claimed in claim 15, wherein the second puncturing element comprises two data outputs.

20. (Previously Presented) The electronic transmitter device as claimed in claim 19, wherein the two data outputs of the second puncturing element are simultaneously the two data outputs of the puncturing device.

21. (Currently Amended) ~~The electronic transmitter device as claimed in claim 19,~~ An electronic transmitter device comprising:
a puncturing device, wherein the puncturing device comprises:

a first and a second data output,

wherein the puncturing device is configured to distribute an output data stream substantially uniformly in parallel between the first and second data outputs;

wherein the puncturing device is configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, with the empty locations, to a number of bits of the output data stream;

wherein the puncturing device is configured to output, in addition to the output data stream, an indication signal which indicates a position of an empty location in the output data stream;

wherein the puncturing device comprises a first puncturing element and a second puncturing element which is arranged downstream of the first puncturing element in the direction of the data stream;

wherein the second puncturing element comprises a first data output and a second data output;

wherein:

the second puncturing element comprises three multiplexers which each have two inputs and one output,

the first data input of the second puncturing element is directly electrically connected both to the first input of the first multiplexer of the second puncturing element and to the first input of the second multiplexer of the second puncturing element

the second data input of the second puncturing element is directly electrically connected both to the second input of the first multiplexer of the second puncturing element and to the second input of the second multiplexer of the second puncturing element,

the output of the first multiplexer of the second puncturing element is directly electrically connected to the first input of the third multiplexer of the second puncturing element,

the output of the first multiplexer of the second puncturing element is electrically connected via a 1-step delay register to the second input of the third multiplexer of the second puncturing element,

the output of the third multiplexer of the second puncturing element is electrically connected via a 1-step delay register to the first data output of the second puncturing element, and

the output of the second multiplexer of the second puncturing element is electrically connected via a further 1-step delay register to the second data output of the second puncturing element.

22 – 45. (Canceled).

46. (New) The electronic transmitter of claim 18, comprising:
a second puncturing element which is arranged downstream of the first puncturing element in the direction of the data stream.

47. (New) The electronic transmitter of claim 46, wherein the second puncturing element comprises a first and a second data input, the first data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element, and the second data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element.

48. (New) The electronic transmitter of claim 46, wherein the second puncturing element comprises a first and a second data output and is configured in such a way that it distributes an output data stream substantially uniformly in parallel between the first and second data outputs.

49. (New) The electronic transmitter of claim 48, wherein the second puncturing element is configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, including the empty locations, to a number of bits of the output data stream.

50. (New) The electronic transmitter of claim 48, wherein the second puncturing element is configured to output, in addition to the output data stream, a signal which indicates a position of an empty location in the output data stream.